6676/6CB6A

Sharp-Cutoff Pentode

7-PIN MINIATURE TYPE
For Mobile-Communications Equipment

GENERAL DATA

Electrical:

Heater Characteristics and Ratings *(Absolute-Maximum Values)*:

Voltage (AC or DC)	6.3[a]		volts
Current at heater volts = 6.3	0.300		amp
Peak heater-cathode voltage:			
Heater negative with respect to cathode	200	max.	volts
Heater positive with respect to cathode	200[b]	max.	volts

Direct Interelectrode Capacitances:

	Without External Shield	*With External Shield*[c]	
Grid No.1 to plate	0.025 max.	0.015 max.	μμf
Grid No.1 to cathode, grid No.3 & internal shield, grid No.2, and heater	6.5	6.5	μμf
Plate to cathode, grid No.3 & internal shield, grid No.2, and heater	2.0	3.0	μμf

Characteristics, Class A₁ Amplifier:

Plate Supply Voltage	125	125	volts
Grid No.3	*Connected to cathode at socket*		
Grid-No.2 Supply Voltage	125	125	volts
Grid-No.1 Voltage	-3	-	volts
Cathode Resistor	-	56	ohms
Plate Resistance (Approx.)	-	0.28	megohm
Transconductance	-	8000	μmhos
Plate Current	2.8	13	ma
Grid-No.2 Current	-	3.7	ma
Grid-No.1 Voltage (Approx.) for plate μa = 20	-	-6.5	volts

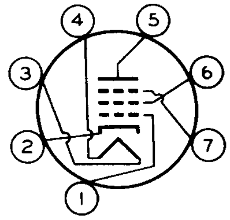
Mechanical:

Operating Position	Any
Type of Cathode	Coated Unipotential
Maximum Overall Length	2-1/8"
Maximum Seated Length	1-7/8"
Length, Base Seat to Bulb Top (Excluding tip)	1-1/2" ± 3/32"
Diameter	0.650" to 0.750"
Dimensional Outline	See *General Section*
Bulb	T5-1/2
Base	Small-Button Miniature 7-Pin (JEDEC No.E7-1)

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Basing Designation for BOTTOM VIEW. 7CM

Pin 1 - Grid No.1
Pin 2 - Cathode
Pin 3 - Heater
Pin 4 - Heater
Pin 5 - Plate



Pin 6 - Grid No.2
Pin 7 - Grid No.3
Internal Shield

AMPLIFIER — Class A[I]

Maximum Ratings, *Absolute-Maximum Values:*

PLATE VOLTAGE	330 max.	volts
GRID No.3 (SUPPRESSOR GRID) . . . *Connect to cathode at socket*		
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE. . .	330 max.	volts
GRID No.2 VOLTAGE . . . . . . See *Grid-No.2 Input Rating Chart* at front of Receiving Tube Section		
GRID-No.1 (CONTROL-GRID) VOLTAGE:		
Positive-bias value	0 max.	volts
GRID-No.2 INPUT:		
For grid-No.2 voltages up to 165 volts	0.55 max.	watt
For grid-No.2 voltages between 165 and 330 volts . See *Grid-No.2 Input Rating Chart* at front of Receiving Tube Section		
PLATE DISSIPATION	2.3 max.	watts

[a] When operated from storage-battery systems, the heater may be subjected to voltage variations as great as ± 20 per cent. Although such extremes in heater voltage may be tolerated for short periods, increased equipment reliability can be achieved with improved supply-voltage regulation.

[b] The dc component must not exceed 100 volts.

[c] With external shield JEDEC No.316 connected to cathode.

SPECIAL RATINGS & PERFORMANCE DATA

Heater Cycling:

Cycles of Intermittent Operation. . . . . . 2000 min. cycles

This test is performed on a sample lot of tubes from each production run under the following conditions: heater volts = 7.5 cycled one minute on and one minute off, heater 135 volts positive with respect to cathode, and all other elements connected to ground. At the end of this test, tubes are checked for heater-cathode shorts and open circuits.

Transconductance at Reduced Heater Voltage:

Average Value . . . . 7100 µmhos

With heater volts = 5.0, plate supply volts = 125, grid-No.3 connected to cathode at socket, grid-No.2 supply volts = 125, and cathode resistor (ohms) bypassed = 56.